greater measure in Philadelphia. The Botanical Club that was organized with as little organization as possible will try to make it very profitable to botanists in the way of becoming acquainted with fellow-workers and examining under competent guidance the interesting plants of the vicinity. We venture to say that the ballast grounds will be well ransacked and many of its waifs added to our collections. Questions of postage are also to be discussed, and it is to be hoped that something definite can be arranged with the postal authorities. Many instances of mismanagement and injustice have already been reported to the committee, and we doubt not that some are yet to be heard from. With such definite complaints something can be accomplished.

PROF. T. CARUEL, of Florence, in 1881 presented to the Linnean Academy a treatise upon the classification of plants. It has now been re-edited by the author, in French, under the title, *Pensées sur la Taxonomie Botanique*, and published last year in Engler's Botanische Jahrbücher. So far as Phanerogams are concerned, Gymnosperms are given their proper position in relation to the higher Cryptogams, and Angiosperms begin with Monocotyledons. As every one now consents to this arrangement, the question naturally arises, When are we going to begin to use it? Prof. Caruel also discards our old divisions of *Polypetalæ*, *Gamopetalæ*, and *Apetalæ*, which every systematic botanist has long seen are too artificial to stand, and substitutes the cohorts *Dichlamydanthæ*, *Monochlamydanthæ*, and *Dimorphanthæ*. We would suggest that when the change has to come that shorter names be devised, for they must be used by many who could neither spell nor pronounce such names as the above. According to Dr. Gray, the first cohort includes Gamopetalous and Polypetalous orders generally; the second all the Candollean orders from Ranunculaceæ to Fumariaceæ, the Cactaceæ, Portulacaceæ, etc.; the third has Begoniaceæ, Euphorbiaceæ, Urticaceæ, etc., and the Amentaceous orders. Some Jussieu or DeCandolle must arise and give us a new arrangement.

CURRENT LITERATURE.

Elementary Botany, with student's guide to the examination and description of plants. By George Macloskie, D.Sc., LL.D., Professor of Natural History in the J. C. Green School of Science, Princeton, N. J., etc. New York: Henry Holt & Co., 1883. pp. VIII, 373.

One who receives a new elementary botany now-a-days, turns to its examination in a somewhat skeptical frame of mind, hardly daring to hope that he will find in it any thing fresh or new, so often have former hopes been disappointed. But any one who begins to peruse this book will speedily become roused to the consciousness that here is really something far above the average run of text-books. It is doubtful, indeed, whether this one should be called a text-book, because the author tells us that he has aimed "to supply a readable sketch of botany, followed by a guide to work in the field and in the laboratory." It is not always that a book corresponds to the aim of an author, as stated in his preface. This, however, surely does, for it is one of the *most readable* books yet come into our hands. The style is admirably clear and vigorous, the pages unencumbered with technicalities (though technical terms are never

dodged when needed), and the subject matter permeated with a subdued ætiological philosophy, which adds vivacity to the whole. Moreover, the book embodies the latest views of botanists in all departments of the science. Best of all, it is made evident to every reader or student at the very outset, that he is not expected to get his knowledge of botany from the pages which follow, but by personal investigation. Part I, treating of the parts of plants, is wholly occupied with the thorough examination of the "morning-glory" as preliminary to Part II, the structure of flowering plants. Part III discusses the flowerless plants; IV, herborizing and manipulation; V, the vegetable kingdom, including chapters on the external relations of plants, classification and a synopsis of classes and orders; VI, is a general guide for examining and describing plants; VII, special schedules for Cruciferæ, Umbelliferæ, Compositæ, Gramineæ and Ferns; VIII, contains alphabetical lists of Latin and Greek root words, numerals and prefixes. The last part is an admirable thought, helpful alike to teacher and pupil. In connection with parts six and seven, we wish heartily to indorse this remark in the preface, that "it is better and more interesting to spend the leisure of a whole season on a single species than to hurry over a great number merely for the sake of discovering their names." Would that every student could be impressed with that idea.

Possessing these many good qualities, there are unavoidably some defects, but these are so comparatively unimportant that they do not need special mention. Dr. Macloskie is to be congratulated that he has produced a book which is sufficiently complete, reliable and interesting to be placed in the hands of students; one which directs them to observe for themselves and not to memorize; and one, withal, quite original in manner and arrangement.

Characeæ Americanæ Exsiccatæ, distributæ a T. F. Allen, M. D. Fasciculus IV., No. 31–40ª.

The work of Dr. Allen in investigating and making known our Characean flora is worthy of high commendation. His well illustrated papers in the *Bulletin of the Torrey Club*, supplemented by the present series of exsiccatæ, which are distributed with much liberality, make it possible to collect and study the American species in quite an intelligent and satisfactory manner; and none of the lower plants commend themselves more favorably to the attention of collectors. The present fasciculus contains four species of *Nitella*, three of *Tolypella*, three of *Chara*, and an additional extra-American species of *Nitella* from New Zealand. *Nitella minuta*, a new species, is accompanied by a description.

A Catalogue of the Native and Naturalized Plants of the City of Buffalo and its Vicinity. By David F. Day. 8vo., 215 pp. Buffalo.

This is surely the most complete local American catalogue we have yet seen, for it includes both Phænogams and Cryptogams. It is prefaced by a dozen pages defining the region covered and describing all the necessary surface features, and closes with a tabular view of the orders, an important supplement, and an index of genera. Considering that the list embraces only those plants which have been satisfactorily identified, growing within a radius of 50 miles around Buffalo, 2739 species show a most commendable amount of exploration. The fungi are from the hands of Mr. Chas. Peck, a fact which gives this unusual portion of the catalogue an authentic character. Mr. Day is certainly to be congratulated upon such a successful completion of a work which must have taken a great amount of time and labor. Among Phænogams, the Compositæ number 143 species, Cyperaceæ 105, Gramineæ 88, Rosaceæ 52, Leguminosæ 45, Labiatæ 39, Ranunculaceæ and Cruciferæ 36 each, Orchidaceæ 34, Liliaceæ 31, Scrophulariaceæ 30, etc., an order of abundance decidedly different from that found in the flora of Indiana.